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THE PARALYTIC TYPE OF IDIOCY AND IMBECILITY.

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From
PEDIATRICS
Vol. V, No. 12, 1898.

THE PARALYTIC TYPE OF IDIOCY AND IMBECILITY.

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VARIOUS forms of cerebral paralysis (spastic palsies) accompanied often by choreiform and athetoid movements, are common among idiots and imbeciles, such cases falling into the large class constituting the paralytic type.

The general division into the three groups of hemplegic, diplegic or paraplegic according as the distribution of paralysis is unilateral, bilateral or paraplegic is useful for description and classification.

The following table gives an approximate analysis of such cases occurring in a population of 600 (406 males, 194 females) feeble-minded children and adolescents at present in the Royal Albert Asylum, Lancaster*:

TABLE SHOWING TYPE OF PARALYSIS:

	M.	F.	Total.
Hemiplegia	9	4	13
Diplegia	17	6	23
Paraplegia	5	9	14
	31	19	50

The difficulty of getting an accurate history in cases of mental defect is well known, and this is especially true in regard to the "age of onset."

As to the paralysis, it is almost impossible to get a definite statement whether it was really congenital or had developed soon after birth. For this reason some of the cases recorded in the following table as commencing during the first year, may have been born with the lesion. The chief point to notice, however, is that the di- and para-plegia have their onset in early infancy, at or soon after birth; while the onset of the hemiplegia occurs, as a rule, during the first three years of life.

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*It should be stated that according to the rules of the Asylum, neither epileptic nor paralytic cases are eligible for admission. In spite of this rule, however, many such cases do become inmates.

That some of the cases which in early childhood were of a hemiplegic type, and in which severe or frequent epileptic attacks supervene, become, as time goes on, more or less diplegic seems very probable:

TABLE SHOWING AGE AT ONSET.

	Hemi.	Di.	Para.	Total.
Congenital	0	6	1	7
First year	6	12	10	28
Second year	5	4	1	10
Third year	2		1	3
Age not recorded		1	1	2
	13	23	14	50

Among the subjects of these palsies we find every degree of mental defect, ranging from profound idiocy through the higher grades of imbecility to mere backwardness.

The degree of paralysis, however, is not always an index of the mental capacity, many of the most crippled cases being fairly close to the normal in intelligence.

The accompanying table gives a broad classification into the two groups of idiot and imbecile.

	IDIOTS.		IMBECILES.		
	M.	F.	M.	F.	Total.
Hemiplegia	5	2	4	2	13
Diplegia	4	2	13	4	23
Paraplegia	2	7	3	2	14
	11	11	20	8	
	22		28		50

In nine of the cases, choreiform, ataxic and athetoid spasms of a severe character occur.

Five of these have well marked double athetosis, while four have exaggerated choreiform and inco-ordinate movements, which are very marked and extreme on any voluntary effort, or under excitement or observation. Lesser degrees of post-hemiplegic tremor and hemiataxia are present in twelve other cases. In all the cases the finer movements of the hand, and the walking and balancing powers of the foot and leg are defective; eleven cannot walk without assistance. Speech is affected in the majority of these cases, and in many of them it is quite absent; in very few is it perfect.

CONDITION AS TO SPEECH.

	Absent.	Imperfect.	Fair.
Male	9	17	5
Female	10	7	2
	19	24	7

Nine of the cases (six males and three females) suffer from epilepsy. Two of these patients are now diplegic, due probably to extension of the cortical mischief, owing to the severity of the fits. The seizures in the nine cases vary in frequency from an average of two fits per month, in one boy, to forty per month in another. In all the cases the fits are of a severe type, and are more or less unilateral in character at the commencement of the seizure. The tendency of the fits is to become more severe as the patient gets older, and to lead to an increase of the paralysis and of the contractures.

The etiology of these cases is fairly constant:

(1) *Hemplegia.*—Injury, most often by hemorrhage, to the motor region of one side, mainly that area of the cortex supplied by the. middle cerebral arteries; followed later by sclerosis or by porencephalus and by a secondary descending degeneration of the pyramidal tract.

The immediate cause of the lesion is generally convulsions with coma (occurring, as a rule, during the first three years of life) due to various exciting causes, e. g., asphyxia neonatorum, teething, whooping cough, fevers, falls, etc. Cases may, however, occur without convulsions or coma.

(2) *Diplegia.*—Injury or destruction of the motor centres of the cortex, followed later by sclerosis and by descending degeneration of the pyramidal tracts.

The destructive lesion generally dates from birth, and is most often due to the accidents attending abnormal parturition,

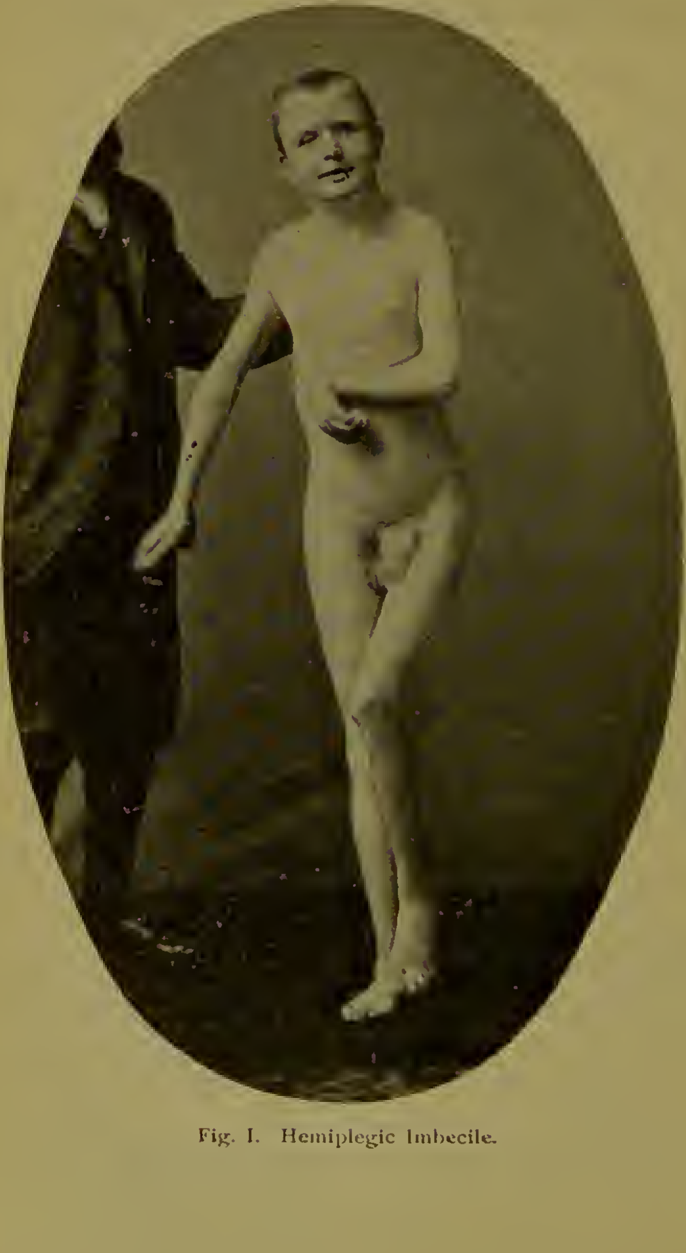

Fig. I. Hemiplegic Imbecile.

e. g., long or difficult labor, asyphyxia neonatorum, convulsions at or soon after birth, injury by the forceps, etc.

(3) *Paraplegia.*—Injury to the motor centres, of less extent, but caused in a similar manner to that found in the diplegia, and occurring at birth or in early infancy.

Thus in the three types of paralysis the essential cause is a cortical injury to the motor region in one or both hemispheres of the brain, due to hemorrhage or inflammation or trauma, occurring at a time when rapid growth and development are going on.

Among some of the exceptional causes assigned in the histories of the fifty cases under review, we find: "Mental anxiety of mother, who is feeble minded and epileptic"; "erysipelas of face and head at eight months"; "fall out of bed at nine months"; "hydrocephalus"; "fall on the head at nine months"; "meningitis before one year"; "influenza at three years"; "meningitis with convulsions at two years"; "maternal fright at fifth month of pregnancy."

The cause is unassigned in ten cases. In six there is a definite history of primogeniture.

Fig. 1 (from photograph). Case illustrating the hemiplegic type.

A. B., aged 17. First-born child. Parents normal and healthy, but some history of mental trouble on maternal side. Both temperate. Three younger children normal in physical and mental condition. Two miscarriages.

Patient was born at full time, and the labor was not abnormally long; no instrument used. Patient not asphyxiated when born, nor was he convulsed soon after birth. Was beginning to walk and talk at two years. There is a history of a fall at two years, followed by several convulsive seizures, after which the hemiplegia was observed. The patient cannot now stand or walk without support. Speech is very imperfect. He is not epileptic.

Left hemiplegia with rigidity and contractures is well marked. Left arm is rigidly adducted, the forearm is flexed at a right angle at the elbow, the hand is actually flexed and contracted at the wrist, the fingers are bent towards the palm. The left leg when at rest is drawn up about two inches from the ground and strongly adducted. The foot is more or less in a position of talipes-equinus. He cannot close the left eye

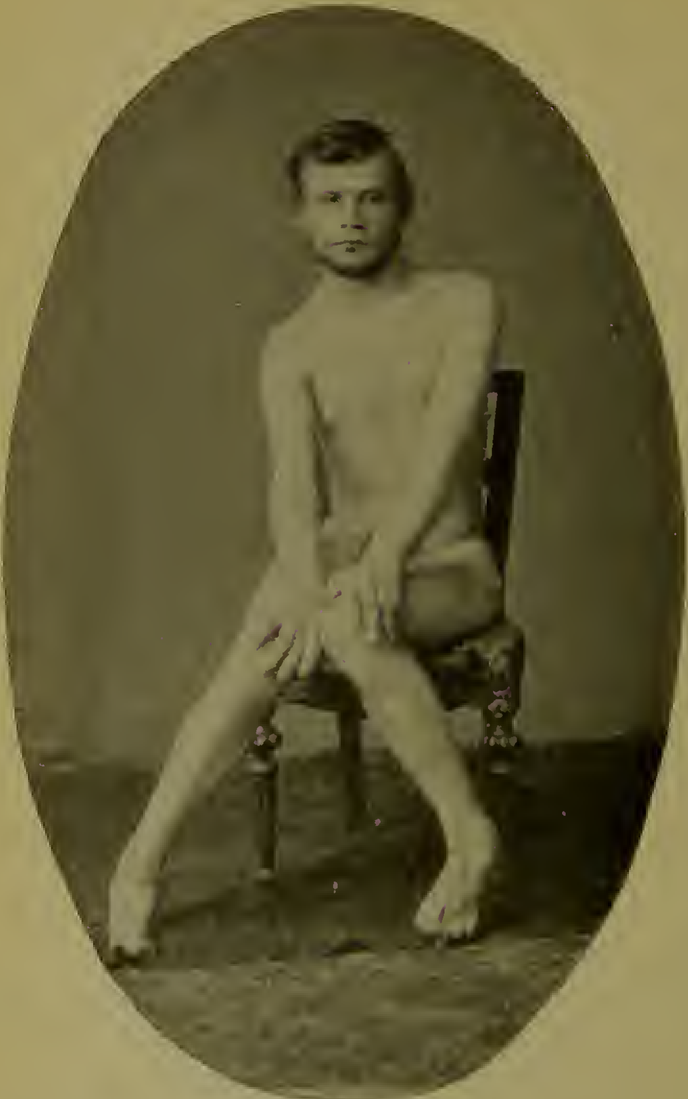

Fig. II. Diplegic Imbecile.

completely. The rigidity is increased by emotion or voluntary effort, at which time also inco-ordinate movements appear.

There is coldness and blueness of the paralysed extremities.

The nutrition of the limbs is shown by the following measurements in inches:

	RIGHT.	LEFT.
Circumference of middle of thigh	15	11½
" " " " leg	11	8¼
" " " " arm	8	7
" " " " forearm	7	4¾

The knee jerk is exaggerated in both legs, left slightly greater. Ankle clonus present in both limbs. Head measures 22⅛ inches in circumference. It is brachycephalic in shape, with a cephalic index of 81.3. The palate is higher than normal. The alveolus is thickened. The teeth are carious and irregular. The boy is a low-grade imbecile, incapable of much improvement.

Fig. 2 (from photograph). Case illustrating the diplegic type.

C. D., aged 22, is the second-born child, the eldest being a girl. There are three other children, all normal in physical and mental condition. Two miscarriages. The parents are both healthy, intelligent, and temperate. The patient was born at full time. Labor was prolonged and difficult; instruments were used. The child was asphyxiated at birth, and was convulsed for three weeks after. Has not had any fits since. He is a well marked case of bi-lateral hemiplegia. He cannot stand without support, and is the subject of extreme general bi-lateral ataxia; the muscles of the arms and legs being thrown into violent choreiform or athetoid movements on the commencement of voluntary effort or during excitement. He can, to a great extent, control these movements by a strong effort of the will. The muscles of the face, mouth, and tongue show these inco-ordinate movements when he articulates. His head circumference is 21¾ inches. The shape of the head is mesaticephalic with a cephalic index of 76.3. The palate is normal in height, with good dental curve. Teeth sound and regular.

His mental capacity is good. He must be classed as a